

application programming interfaces (APIs). Access to the SpendCap Manager™ module 200 is done via a uniform resource locator (URL) with special keyword that the web server 203 intercepts and redirects to the SpendCap Manager™ module 200 for processing.

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**Paragraph on page 8, lines 11-17**

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A2  
A user 201 may access the SpendCap Manager™ module 200 via a local server or independent service provider server 202 that is connected to the Internet 204. Alternately, the user 201 may connect directly or indirectly to the Internet 204 with a suitable browser to create a department object in step 207. A department object is created in step 207 for the department 109 in which the user 201 belongs if it has not already been created. A department object contains its assigned spending capacity and expenses of the department 109 of the user 201 organized in multiple plan objects. A plan object represents a category of spending (called spend accounts 406) of the department 109, such as headcount, salary, travel expenses, and miscellaneous spending.

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**Paragraph on page 9, line 29 – page 10, line 5**

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A3  
Steps 205 and 206 for logging on and authentication is produced when the two hash values equal, and thus the user is authenticated thereby in step 512. If the two hash values do not equal, the user is not authenticated in step 514.

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**Paragraph on page 10, line 23 – page 11, line 6**

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A4  
Referring now to Figure 4, the application structure 400 of the SpendCap Manager™ Module is shown. Organization hierarchy 404 is an internal tree structure that closely mirrors the organizational structure of the associated company or organization. The organization hierarchy 404 is designed to capture the parent-child relationship of department objects. For example, the organization hierarchy 404 will implement the reporting structure in an organization, so that all departments under a particular manager will be children in the hierarchy with the manager's department as their parent. For example, in Figure 4, if the manager is in charge of a first department 409, and has a second department 410 and a third department 411 reporting to the manager, the organizational hierarchy 404 will reflect this parent-child relationship as shown in Figure 4. Second department 410 and third department 411 will be children of parent first department 409 in the hierarchy 404. Similarly, fourth

department 412, which reports to the manager of department 411, will be arranged in the hierarchy 404 as a child of parent third department 411, as will be child fifth department 413.

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**Paragraph on page 11, lines 17-20**

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A5 The organization hierarchy 404 shown in Figure 4 helps to enforce the access privilege of a user 201. Typically, a user 201 with department access will have access to his or her own department 409 for data entry and edit capability, and access to all departments or sub-departments 410, 411, 412 and 413 below him or her in the hierarchy with viewing ability.

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**Paragraph on page 11, lines 21-27**

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A6 Each department is associated with a specific subset of the global set of spend accounts 406. The list of users 402, the organization hierarchy 404, the set of spend accounts 406, and the mappings among them are all configurable on an on-going basis to match the changing needs of the deploying organization. The configuration as well as all data in the system is coupled into the stored centrally in a single database 408 via 403, 405, and 407, respectively. Individual users can access this central database 408 easily via the Internet 204 through web browsers from their own computers, such as described above for user 201 with reference to Figure 2.

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**Paragraph on page 11, line 31 – page 12, line 15**

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A7 The SpendCap™ Manager simplifies planning by easily accommodating organizational needs and changes. The organizational hierarchy 404, users 402, spend accounts 406, business drivers, and plan timing elements of a business can be defined and customized by users with administrative rights and administrative access via an easy-to-use interface. Changes to this information can be done in real time. This capability is especially valuable for companies that are growing quickly, and those that undergo frequent merger and acquisition or re-organization activities. In addition, this capability provides tremendous flexibility to an organization to change or respond to market or other changing conditions. In addition, although the present example has been described with reference to the head of Finance 602 having administrative rights, it should be understood that a plurality of users may have such rights. For example, the CEO 601 may have administrative rights. Also, some users may be provided with administrative rights for only a portion of the organization hierarchy 404, which may be

A7  
referred to as sub-administrative rights. For example, user Steve 603 in charge of R&D may have sub-administrative rights for the portion of the organization 609, 605, 606 and 610 that reports directly to his department can conduct planning by modifying data contained in the corresponding department object 703. The user can also view, but not modify, data contained in the department objects, which are subsets of the department object. For example, in Figure 7, the user Steve 603 associated with department 703 could also view, but not modify, data contained in the department objects 709, 705, 706, and 710, which are subsets of the department object 703.

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**Paragraph on page 13, lines 20-29**

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AS  
The layout of the department hierarchy 700 is configured during deployment. Therefore the relationship between each department object in the department hierarchy 700 is also configured at that time. Each department object 703 contains, in addition to the financial data in plan objects 713 and configuration data 714, a reference 711 to its parent department object 701 and list of references 712 to its child department objects 709, 705, 706 and 710. The department object 703 shown in Figure 7 is depicted in detail, with it being understood that all department objects contain similar details which are not shown in the illustrated example. A change to this department hierarchy 700, such as in the case of a company re-organization, will require the re-configuration of the relationship of the affected department objects. This will be one of the tasks for an administrator, such as user Cindy 602.

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**Paragraph on page 13, line 30 – page 14, line 7**

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A9  
When a user, such as a user Steve 603, wishes to assign spending capacity to sub-departments 609, 605, 606 and 610, the department objects 709, 705, 706 and 710, respectively, for the sub-departments 609, 605, 606 and 610 are retrieved from the department hierarchy 700, starting from the user's department object 703 and down the list of references 712 of sub-department objects 709, 705, 706 and 710 contained in the user's department object 703. Once it is obtained, the user Steve 603 is shown the list of references 712. Any existing spending capacity is displayed; the user Steve 603 can change any of the spending capacity and save the changes. The changes are saved in the corresponding department object's spending capacity plan object 713, which is eventually persisted to a data store 408 such as a relational database system.

**Paragraph on page 14, lines 8-19**

A10  
Planning for a department's own expenses are accomplished in a similar fashion. The user Steve 603 selects which spending category he wants to plan. The system retrieves plan objects 713 for the selected category from the user's department object 703. The spend account data included in configuration data 714 is shown to the user Steve 603. Any existing spending is included in the display. The user Steve 603 can make modifications to the planned spending and save the changes. The changes are reflected in the plan object 713 and eventually persisted to the database 408. This process is repeated for planning each spend account in the department object 703. The sum of the total of all the spending accounts and the total allocated spending capacity to the sub-departments 609, 605, 606 and 610 must not exceed the spending capacity assigned to this department for user Steve 603, as in the spending capacity plan in plan objects 713 in the department object 703. If the sum is over the spending capacity, the user Steve 603 can submit a request for additional funds, as shown in step 212 in Figure 3.

**Paragraph on page 14, lines 20-26**

A11  
If the additional funding is granted, the plan can be published as shown in step 210 in Figure 3. The step 210 of publishing a plan is accomplished by copying all of the plan objects 713 in the department object 703 and marking them as public. If a plan has been published previously, it will be over-written by the newly published data. The original plan objects 713 remain in the department object 703, except they are marked as private. The user Steve 603 refining a plan will only modify the plan objects 713 that are marked with a private designation until it is decided to publish the plan.

**Paragraph on page 14, line 27 – page 15, line 1**

A12  
A department object 703 is added to the department hierarchy 700 by setting the parent department field 711 of the department object 703 to an existing department object 701 that physically represents the parent department 601 of the department for the user Steve 603. Child departments 609 605, 606 and 610 are added by adding department objects 709, 705, 706 and 710 representing the physical child departments 609, 605, 606 and 610 of the department for the user Steve 603 to the list of references 712, which may also be referred to as the child department field of the department object 703.

**Paragraph on page 15, lines 2-14**

A13  
A department object 703 may contain configuration data 714 such as plan structures of the plan objects, spend accounts, headcount types, salary-related rates, salary adjustment rates, available currencies, and business drivers. However, such configuration data 714 is not required in every department object. A department object may not physically contain any such configuration data. A setting for applicable configuration data 714 will be inherited from the parent department object 703 by sub-departments 609, 605, 606 and 610 if the configuration data 714 is not defined in sub-department objects 709, 705, 706 and 710. If a setting is defined in configuration data 714 contained in a particular department object 703, it is specific only to the department object 703 and is modifiable by the user Steve 603 associated with the department object 703. When a setting is inherited, for example by the department object 705 from the parent department object 703, the configuration data 714 cannot be modified except by the user Steve 603 of the department object 703 from which the setting is inherited.

**Insert the Following Paragraph on page 17 between lines 19 and 29**

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For example, in Figure 8, corporate sets the overall spending capacity in step 801. Then in step 802, the spending capacity is distributed to various departments from the top down. The distribution in step 802 first occurs in the private planning area called "MYPLAN." Then in step 803, the spending capacity is published into a public "SHAREDPLAN." In step 804, the spending capacity is distributed further down the organization through the same private/public mechanism. In step 805, each department performs a bottom-up expense planning, first in a private working area "MYPLAN." Then in step 806, the expense plan is published into a public "SHAREDPLAN." As depicted in step 807, if a department requires more funding than its allocated spending capacity, the department can generate a request to the department's parent department for additional funding.

**Insert the Following Paragraph on page 17 between lines 25 and 26**

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For example in Figure 9, a user modifies the private copies of his plans in the private planning area and commits changes, as depicted in step 901. Such changes only affect the private copies. In step 902, the user attempts to publish his plans. Then in step 903, assuming the user's plan is under the spending capacity, the private copies are copied over the public copies.

**Paragraph on page 17, line 29 – page 18, line 2**

A13  
Certain department expenses are driven off business drivers. Headcount 1004 is a business driver and is represented by the headcount plan object 1008. The headcount plan object 1008 contains the headcount data 1010 having the total headcount of the department, including the start/end date, the headcount type which maps to salary or hourly rate. The expenses driven off the headcount plan object include the salary and compensation plan and other expense plans.

**Paragraph on page 18, lines 12-17**

A14  
The major expense plan contain a list of line items (minor accounts) that are associated to it such as meal, lodge, car-rental, mileage are to travel expense. Each line item is specified as a fixed amount of spending per headcount and/or a percentage of salary per headcount. The plan computes the actual expenses of each line item by multiplying the fixed amount with the total headcount or multiplying the specified rate, such as the fringe rate 1006 depicted in Figure 10, with the salary of each headcount.

**Paragraph on page 20, lines 6-12**

A15  
Referring to Figure 11, when a user submits a request for additional funds as in step 1101, a request object 1111 is created. Request object 1111 contains a reference to the source department object 1120, destination department object, the current assigned spending capacity, and the additional funds requested. The source department object is the department object requesting the additional funds. The destination department object is the department object approving the request, usually the parent department object. In step 1102, request object 1111 is sent to the messaging system 1112 in the SpendCap application for forwarding to the destination department object 1116.

**Paragraph on page 20, lines 13-25**

A16  
Messaging system 1112 is a mechanism in the SpendCap server for sending data among department objects. When request object 1111 is received by the messaging system 1112, request object 1111 is appended to an internal queue. Requests in the queue are processed in the sequence they are added by a separate thread running in the background, such as background thread 1113. In step 1103, background thread 1113 retrieves a request at a time

A14  
and in step 1104 forwards the request to the destination department object 1110, which adds the request to its own internal queue of requests. The requests will show up when the user of the destination department checks for requests in the request page of the SpendCap application. In step 1105, the user can approve, partially approve or reject a request. In any case, in step 1106 a response to the request is submitted back to the messaging system 1112. The response is encapsulated in a response object 1118. Response object 1118 contains a reference to the source department object that is the destination department object 1116 in the request object 1111, a reference to the destination department object that is the source department object 1120 in the request object 1111, whether the funds were approved or rejected, and the amount approved if approved.

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**Paragraph on page 20, lines 26-31**

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A17  
The response object 1118 is deposited into the messaging system's internal queue in step 1106. The background thread 1113 retrieves the response object 1118 and forwards it to the destination department object in step 1108. The department object matches the response object 1118 with the corresponding request object 1111 and updates the status of the request. If the request was approved, the approved funding is added to the previously assigned spending capacity. The new capacity will be used to enforce the spending when the user attempts to publish his plan.

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**Paragraph on page 21, line 26 – page 22, line 10**

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A18  
The TopLine Planner™ module 100 is a web-based application that provides the functionality of rapidly refreshing revenue forecasts based upon information available to front-line participants in a business organization. Revenue forecasts may be updated based upon changes in business conditions, such as price changes by competitors, delayed product launches, natural disasters, labor strikes, new discoveries, and other factors. This functionality improves financial predictability and increases organizational responsiveness. The TopLine Planner™ module 100 provides a unified forecasting method, having distributed access within a business organization. The TopLine Planner™ module 100 is preferably linked to the SpendCap Manager™ module 102, either directly or preferably through the BizPlan™ module 101. Spend capacity plans may be revised in the SpendCap Manager™ module 102 in response to changes in revenue forecasts received from TopLine Planner™ module 100 based upon P&L